

## Correlation table

|  | Correlation factor (r) |
|--|------------------------|
| End systolic EFT - GS  | r=0.387                |
| End diastolic EFT - GS   | r=0.438                |
| End systolic EFT - GS6M  | r=0.406                |
| End diastolic EFT - GS6M   | r=0.455                |
| End systolic EFT - SYNTAX score  | r=0.243                |
| End diastolic EFT - SYNTAX score   | r=0.202                |
| GS; GRACE score in hospital, GS-6M; GRACE score for six months. EFT; Epicardial fat thickness, |                        |

## PP-294

## Increased Plasma hsCRP and MPO Levels may Predict Ischemia During MPI in Slow Coronary Flow

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**Objective:** It is unclear whether changes in plasma levels of inflammatory markers could explain the link between ischemia and slow coronary flow (SCF). We aimed to evaluate the plasma levels of high-sensitivity C-reactive protein (hsCRP), interleukin (IL)-6, and myeloperoxidase (MPO) during myocardial perfusion imaging (MPI) in SCF patients.

**Methods:** Study population consisted of 53 SCF patients and 30 controls. Coronary flow rates were documented by TIMI frame count (TFC). Plasma levels of hsCRP, IL-6, MPO, and MPI were obtained in all participants.

**Results:** The hsCRP, IL-6 and MPO levels of SCF patients were higher than controls (hsCRP:  $4.7 \pm 2.5$  vs.  $1.7 \pm 1.1$  mg/L,  $p < 0.001$ ; IL-6:  $8.2 \pm 4.3$  vs.  $5.2 \pm 2.1$  pg/mL,  $p < 0.001$ ; and MPO:  $75.9 \pm 59.6$  vs.  $24.3 \pm 16.7$  ng/mL,  $p < 0.001$ ). Twenty-one SCF patients exhibited myocardial perfusion defect (MPD) on MPI. In SCF patients, the highest hsCRP, IL-6 and MPO were observed in patients with both MPD and three-vessel slow flow. Mean TFCs were positively correlated with plasma levels of hsCRP ( $r = -0.424$ ,  $p = 0.002$ ), IL-6 ( $r = 0.367$ ,  $p = 0.007$ ), MPO ( $r = 0.430$ ,  $p = 0.001$ ), and reversibility score ( $r = 0.671$ ,  $p < 0.001$ ) in SCF patients. hsCRP and MPO were the independent variables, which predicted positive MPI-results (hsCRP: OR, 2.176; 95% CI, 1.200 to 3.943;  $p = 0.010$ , MPO: OR, 1.026; 95% CI, 1.007 to 1.046;  $p = 0.008$ ).

**Conclusion:** Inflammation might play a crucial role in both the pathogenesis and development of ischemia in SCF. Association of increased levels of inflammatory markers and ischemia suggests that endothelial inflammation might be largely responsible for clinical presentation. New combined treatment regimens should target at endothelial activation and inflammation in SCF.

## PP-295

## Short Term Effect of Percutaneous Recanalization of Chronic Total Occlusions on QT Dispersion and Heart Rate Variability Parameters

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**Aim:** QT dispersion (QTd) is a measure of inhomogeneity of myocardial repolarization, increases following impaired myocardial perfusion and its prolongation may provide a suitable substrate for life-threatening ventricular arrhythmias. We investigated the changes in QTd and heart rate variability (HRV) parameters after successful coronary artery revascularization in patient with chronic total occlusions (CTO).

**Methods:** One hundred and thirty nine successfully revascularized CTO patients were included in this study (118 men, 21 women, mean age  $58.3 \pm 9.6$  years). QTd was measured from a 12-lead electrocardiogram and QTd was defined as the difference between maximum and minimum QT interval. HRV analyses of all subjects were obtained. Frequency domain (LF:HF) and time domain (SDNN, pNN50 and rMSSD) parameters were analyzed. QT intervals were also corrected for heart rate using the Bazett's formula, and the corrected QT interval dispersion (QTcd) was then calculated. All measurements were made before and after percutaneous coronary intervention (PCI).

**Results:** Both QTd and QTcd showed significant improvement following successfully revascularization of CTO ( $55.83 \pm 14.79$  to  $38.87 \pm 11.69$ ;  $p < 0.001$  and  $61.02 \pm 16.28$  to  $42.92 \pm 13.41$ ;  $p < 0.001$ ). The revascularization of LAD (n=38), Cx (n=28) and RCA (n=73) resulted in decrease in HRV indices including SDNN, rMSSD and pNN50, however none of the variables reached statistical significance.

**Conclusion:** Successful revascularization of CTO may result in improvement in regional heterogeneity of myocardial repolarization, evidenced as decreased QTcd after the PCI. The revascularization in CTO lesions does not seem to have a significant impact on HRV.

## PP-296

## Evaluation of Diagnostic Value of Serum Vitronectin Level in Patient with Acute Myocardial Infarction

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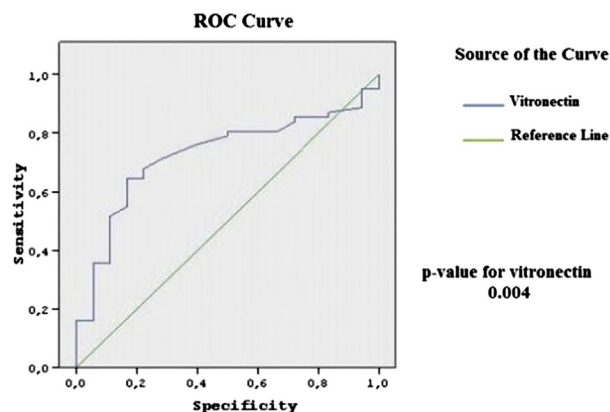
**Introduction:** Vitronectin (VN), a 459 aminoacid long glycoprotein with a mass of 75 kDa, is found in plasma, extracellular matrix (ECM) and  $\alpha$  granules of platelets. VN functions as a regulator of platelet adhesion and aggregation, coagulation and fibrinolysis. Plasma VN levels were found to be elevated in patients with coronary artery disease (CAD), and a positive correlation between VN levels and CAD severity has been demonstrated. VN was also shown to be an independent predictor of adverse cardiovascular outcomes following acute stenting in patients with acute coronary syndromes (ACS) or stable angina.

The aim of this study was to investigate the diagnostic role of serum VN level at admission in patients with ACS. The relation between extent of CAD and VN levels was also investigated.

**Methods:** Sixty-two patients (40 men, mean age  $59.9 \pm 10.3$  years and 22 women, mean age  $68.9 \pm 11.2$  years), who had been admitted to coronary care unit with first time diagnosis of ACS (ST elevation myocardial infarction [STEMI], non-ST elevation myocardial infarction [NSTEMI]) were consecutively included in the study. The control group consisted of 18 stable patients in whom normal coronary arteries were documented in coronary angiography. Patients were divided into two sub-groups as STEMI and NSTEMI. Blood samples were drawn within 6 hours after onset of chest pain and serum VN, high sensitive C-reactive protein (hs-CRP) and N-terminal pro-brain natriuretic peptide (NT-proBNP) levels were measured using an enzyme immunoassay method. Also, TIMI and GRACE clinical risk scores were calculated on admission for all ACS patients. Appropriate statistical methods were utilized to evaluate the diagnostic value of VN in ACS.

**Results:** The VN serum levels were demonstrated to be higher in MI patients ( $7.00 \pm 11.94$   $\mu\text{g/ml}$  in STEMI group,  $7.72 \pm 18.02$   $\mu\text{g/ml}$  in NSTEMI group vs.  $1.81 \pm 2.22$   $\mu\text{g/ml}$  in controls,  $p = 0.012$ ). When VN levels were compared between STEMI and NSTEMI groups, no significant differences were observed ( $p = 0.41$ ). Also, there was a significant positive correlation between VN levels and Gensini score only in NSTEMI patients ( $r = 0.436$ ,  $p = 0.013$ ). When the diagnostic value of VN levels for MI was investigated, a cut-off value of  $1.59$   $\mu\text{g/ml}$  yielded a sensitivity of 64%, a specificity of 84%, a positive predictive value of 93%, and a negative predictive value of 41%. Also, when the diagnostic utility of VN was assessed using ROC analysis, an area under the curve (AUC) of 0.72 was found (95% CI: 0.60-0.84;  $p = 0.004$ ; Figure).

**Conclusion:** The present study demonstrate that, VN may have a utility as a diagnostic marker in patients with ACS. Also, VN may have a role to predict extension and severity of CAD in patients with NSTEMI.



## PP-297

## Lower Serum Levels of Angiopoietin Like Protein-6 are Associated with Significant Coronary Artery Disease

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**Aim:** Angiopoietin-like protein-6 (Angptl6) is a growth factor which enhances the survival of hematopoietic stem cells. It is hypothesized that it may exert an anti-atherosclerotic effect through enhanced survival of endothelial progenitor cells. The